

ORDER FOR SUPPLIES OR SERVICES							PAGE OF PAGES	
							1	12
IMPORTANT: Mark all packages and papers with contract and/or order numbers.								
1. DATE OF ORDER 07/29/2020		2. CONTRACT NO. (If any)			6. SHIP TO:			
					a. NAME OF CONSIGNEE Carlton Jones, 919-541-4346			
3. ORDER NO. 68HE0B20P0382		4. REQUISITION/REFERENCE NO. PR-ORD-20-01262						
5. ISSUING OFFICE (Address correspondence to) ORD/ORM/EMD/SAB SONYA MITCHELL, CO, 919-541-4081 US ENVIRONMENTAL PROTECTION AGENCY 109 T.W. ALEXANDER DRIVE MAILCODE: AA116-02; ROOM: A1300 RESEARCH TRIANGLE PARK NC NC 27709					b. STREET ADDRESS US Environmental Protection Agency ORD-CCTE-BCTD 109 T.W. Alexander Drive		c. CITY Research Triangle Park	e. ZIP CODE 27709
7. TO: Joel McComb					f. SHIP VIA BEST WAY			
a. NAME OF CONTRACTOR BioSpyder Technologies, Inc.					8. TYPE OF ORDER			
b. COMPANY NAME					<input checked="" type="checkbox"/> a. PURCHASE REFERENCE YOUR: Quote Number:1248		<input type="checkbox"/> b. DELIVERY Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
c. STREET ADDRESS 5922 Farnsworth Ct Ste 102					Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if anv. including delivery as indicated.			
d. CITY Carlsbad		e. STATE CA		f. ZIP CODE 920087398				
9. ACCOUNTING AND APPROPRIATION DATA See Schedule					10. REQUISITIONING OFFICE Office of Research and Development			
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input checked="" type="checkbox"/> a. SMALL <input type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB							12. F.O.B. POINT	
13. PLACE OF			14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 09/01/2020		16. DISCOUNT TERMS 30 NET	
a. INSPECTION Destination		b. ACCEPTANCE Destination						
17. SCHEDULE (See reverse for Rejections)								
ITEM NO. (a)	SUPPLIES OR SERVICES (b)			QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 078410758 RNA Sequencing Analysis (TempO-Seq) EPA POC: Carlton Jones, contact via (919) 541-4346 or Jones.Carlton@epa.gov Continued ...							
SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		\$78,178.92	17(h) TOTAL (Cont. pages) ◀
	21. MAIL INVOICE TO:							
	a. NAME RTP Finance Center							
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts							
c. CITY Durham		d. STATE NC		e. ZIP CODE 27711		\$78,178.92		17(i) GRAND TOTAL ◀
22. UNITED STATES OF AMERICA BY (Signature)						23. NAME (Typed) Sonya Mitchell TITLE: CONTRACTING/ORDERING OFFICER		

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
2

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DATE OF ORDER 07/29/2020	CONTRACT NO.	ORDER NO. 68HE0B20P0382
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>Invoice Approver: Carlton Jones Admin Office: ORD/ORM/EMD/SAB SONYA MITCHELL, CO, 919-541-4081 US ENVIRONMENTAL PROTECTION AGENCY 109 T.W. ALEXANDER DRIVE MAILCODE: AA116-02; ROOM: A1300 RESEARCH TRIANGLE PARK NC NC 27709</p> <p>Reference the following: Quote Number 1248</p> <p>RNA Sequence Analysis:</p> <p>1.) Item # SE-01-001 (b)(4)</p> <p>Includes standard control RNA samples supplied by BioSpyder. Includes assay processing and sequencing.</p> <p>Qty: (b)(4) Amount: (b)(4)</p> <p>2.) Item # SE-89-002 TempO-SeqR Primary Data Analysis. Includes initial alignment, QC, and count table output. Qty: (b)(4) Amount: (b)(4)</p> <p>3.) Item # Shipping Shipping and handling (b)(4) (b)(4) Qty: (b)(4) Amount: (b)(4)</p> <p>TOTAL: \$78,178.92</p> <p>Accounting Info: 20-21-C-26B1000-000FK7XR3-3131-26A6F-2 026B1E034-001 BFY: 20 EFY: 21 Fund: C Budget Org: 26B1000 Program (PRC): 000FK7XR3 Budget (BOC): 3131 Cost: Continued ...</p>				78,178.92	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$78,178.92

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER
07/29/2020

CONTRACT NO.

ORDER NO.

68HE0B20P0382

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<p>26A6F DCN - Line ID: 2026B1E034-001</p> <p>Funding Flag: Complete</p> <p>Funded: \$50,178.92</p> <p>Accounting Info:</p> <p>20-21-C-26B1000-000FK7XR3-3131-26A5C-2</p> <p>026B1E034-002 BFY: 20 EFY: 21 Fund: C</p> <p>Budget Org: 26B1000 Program (PRC):</p> <p>000FK7XR3 Budget (BOC): 3131 Cost:</p> <p>26A5C DCN - Line ID: 2026B1E034-002</p> <p>Funding Flag: Complete</p> <p>Funded: \$28,000.00</p> <p>Period of Performance: 09/01/2020 to 08/31/2021</p> <p>Carlton Jones is hereby delegated authority by the Contracting Officer for invoice approval on PO # 68HE0B20P0382.</p> <p>NO PARTIAL PAYMENT AUTHORIZED</p> <p>Please send invoice to RTP Finance Center (See Block 21) or E-mail to: RTPReceiving@epa.gov.</p> <p>E-mail a copy of invoice to Mitchell.Sonya@epa.gov.</p> <p>Must mark packing slip(s)/invoice with PO # 68HE0B20P0382 and Attn: Carlton Jones, (919) 541-4346 or Jones.Carlton@epa.gov</p>					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

STATEMENT OF WORK

PR-ORD-20-01262

Date: June 8, 2020

Title: TempO-Seq® Human Surrogate S1500+ Assay Services for roughly 768 provided samples

Program Office: ORD/CCTE/BCTD

BACKGROUND:

BioSpyder Whole Transcriptome TempO-Seq® required to identifying gene signatures in human cell lines exposed to chemicals.

SCOPE/OBJECTIVE:

This contract will cover the sequencing of over 384 samples using TempO-Seq® Human Tox Panel gene expression profiling assay.

TASK DESCRIPTION:

BioSpyder TempO-Seq Assay is an important tool for characterizing environmental effects in model systems. The EPA would like to use TempO-Seq® to sequence, in purified RNA isolated (or cell lysates) from Human cell culture, exposed to chemicals. Human cell culture samples will be collected and sent to BioSpyder® for TempO-Seq® targeted whole transcriptome profiling. The data created from TempO-Seq® will be used to evaluate molecular targets.

MILESTONES AND DELIVERABLES:

- Period of the contract will extend from September 1, 2020 through August 31, 2021. Samples will be provided to BioSpyder®
- BioSpyder® shall complete TempO-Seq® Human Tox Panel gene expression profiling assay within 8 weeks of reception of samples
- Data shall be delivered to EPA upon completion of analysis and assessment of any QA concerns.

DELIVERABLES SHALL INCLUDE:

The data will be delivered upon the completion of TempO-Seq® Human Tox Panel gene expression profiling assay. The deliverable shall also include QA data. The sequencing data will be in per-sample FASTQ files.

BioSpyder® supplies all necessary scripts specific to TempO-Seq® for converting FASTQ files into gene count tables. CSV formatted raw count table output compatible with standard gene expression and differential expression analysis software packages (e.g. DESeq2). BioSpyder® provides support for sample collection, assay, performance and data analysis software packages.

DATA ACCEPTANCE CRITERIA:

Mis-Ligation approximately 1%, using screened out from mapped reads. Background: <1% reads in no-sample negative controls compared to positive controls. Average CV: <15% for genes expressed at ≥ 20 counts. Mapping Rates >91.5%. Sensitivity Measure as few as 10 mRNA molecules. High accuracy detection of single-cell transcriptome. Detect high expressing genes from 100fg total RNA. Fold-change 1.2-fold changes readily detected.

APPLICABLE AND CONTROLLING DOCUMENTS:

Copy of QC summary report.

SPECIAL REPORTING:

See deliverables.

PERIOD OF PERFORMANCE: 09/01/2020 – 08/31/2021

TECHNICAL POINT OF CONTACT: Chris Corton, Research Biologist, 919-541-0092, corton.chris@epa.gov